PIPING PLOVER HABITAT CONSIDERATIONS FOR BEACH NOURISHMENT PROJECT DESIGNS. Jim Fraser[1] and Jonathan Cohen. [1]Department of Fisheries and Wildlife Sciences, Virginia Tech, Blacksburg, VA, 24061-0321; Phone: (540) 231-6064; Fraser@Vt.edu.

Understanding Piping Plover (*Charadrius melodus*) habitat requirements is the first step toward designing plover friendly approaches to beach management. Key Piping Plover wintering habitats include protected moist substrates, especially bay intertidal habitats and, in some areas, lagoon habitats, juxtaposed with wide undisturbed beaches. On the Alabama coast, Piping Plovers used mudflats or sand flats 93% of the time observed, and foraged more at lower tides. In a survey from Virginia to Key West, and from Everglades National Park to Brownsville, Texas, Piping Plovers commonly used mudflats, sand flats and tide pools. Piping Plovers were observed foraging most frequently on sand flats and sandy mudflats. During the winter on the Texas Gulf Coast barrier islands, plover densities were greater in bay side feeding areas than on Gulf side areas. Radio telemetry studies in Texas estimated use of algal flats, sand flats and mudflats at 74%, 89% and 78% of habitat use in fall, winter, and spring, respectively. Thus, wintering plovers can be thought of as intertidal creatures that come to the upland when the tide is high. A plover friendly objective of beach management project then is to create large intertidal sand flats juxtaposed to undisturbed beach habitats. While plovers can and do fly between these habitat types when necessary, building diverse habitats close to one another is best as is saves the birds' energy for survival and weight gain. In addition to wide undisturbed beaches adjacent to moist substrate habitats, nesting plovers benefit from sparse vegetation that provides cover for flightless chicks. Predation is a major threat to recovery of this species. Like many ground nesting birds, Piping Plovers nest on islands to reduce risk of predation. Thus, increased predator populations on barrier islands resulting largely from human activities are problematic for Piping Plovers. Predator management must be a component of any habitat management plan.